

Applicant : Yingyos Avihigsanon, *et al.*
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Attorney's Docket No.: 01948-059001

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method for monitoring the status of a transplanted organ in a host, the method comprising:
 - a) providing a post-transplantation sample from the host;
 - b) determining the level of gene expression in the post-transplantation sample of at least one gene, wherein the at least one gene is heme oxygenase 1 (HO1), A20, ~~or a gene that is coordinately regulated with HO1 or A20 in the post-transplantation sample (HO1) or A20;~~
 - c) comparing the level of gene expression of the at least one gene in the post-transplantation sample to a baseline level of gene expression of the at least one gene or to a baseline level of gene expression of a constitutively expressed gene; and
 - d) determining whether the at least one gene is upregulated relative to the baseline level of gene expression of the at least one gene or to the baseline level of gene expression of a constitutively expressed gene, wherein upregulation of the at least one gene indicates that the host is likely to experience transplant rejection; thereby monitoring the status of the transplanted organ.
2. (Previously presented) The method of claim 1, wherein the post-transplantation sample is a graft biopsy.
3. (Previously presented) The method of claim 1, wherein the post-transplantation sample is a fluid test sample.
4. (Original) The method of claim 3, wherein the fluid test sample is selected from the group consisting of: urine, peripheral blood, bile, bronchoalveolar lavage fluid, pericardial fluid, gastrointestinal juice, feces, and fluid gathered from an anatomic area in proximity to an allograft.

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5. (Previously presented) The method of claim 1, wherein determining the level of gene expression comprises determining the level of expression of HO1 and A20.

6-7. (Canceled).

8. (Previously presented) The method of claim 1, wherein the transplant rejection is an acute rejection.

9. (Original) The method of claim 8, wherein the acute rejection is an early acute rejection.

10-34. (Canceled)

35. (Previously presented) The method of claim 1, wherein the transplant rejection is chronic transplant rejection.

36. (Currently amended) The method of claim 35, wherein the at least one gene is A20 ~~or a gene that is coordinately regulated with A20, and~~ wherein upregulation of A20 ~~or a gene that is coordinately regulated with A20~~ indicates that the host is likely to experience chronic transplant rejection.

37. (Currently amended) The method of claim 36, further comprising determining the level of gene expression of HO1 ~~or a gene that is coordinately regulated with HO1~~, wherein a low expression level of HO1 indicates that the host is likely to experience chronic transplant rejection.

38. (Previously presented) The method of claim 1, wherein the host is a human patient.

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39. (Previously presented) The method of claim 1, wherein the transplanted organ is a kidney.

40. (Previously presented) The method of claim 1, wherein the sample is obtained during the non-rejection period.

41. (Previously presented) The method of claim 1, wherein the constitutively expressed gene is glyceraldehyde-3-phosphate dehydrogenase.

42. (Previously presented) The method of claim 1, wherein the constitutively expressed gene is cyclophilin B or actin.

43. (Previously presented) The method of claim 1, wherein the at least one gene is HO1.

44. (Previously presented) The method of claim 1, wherein the at least one gene is A20.